

## **IMAGE PROCESSING AND ANALYSIS FRAMEWORK**

### **Abstract**

**[56]** A system and method for processing and analyzing virtual microscopy digital images (“virtual slides”) is provided. The system comprises an algorithm server that maintains or has access to a plurality of image processing and analysis routines. The algorithm server additionally has access to a plurality of virtual slides. The algorithm server executes a selected routine on an identified virtual slide and provides the resulting data. The virtual slide can be accessed locally or remotely across a network. Similarly, the image processing routines can be obtained from local storage or across a network, or both. Advantageously, certain common sub-routines may be stored locally for inclusion in other local or remotely obtained routines. Access to image processing and analysis may be restricted through a monitor process that authenticates requests to process or view virtual slides. Variations in restrictions to images provide a rich diversity in access levels that allow sharing of virtual slides and demonstrations of image processing algorithms.